REMARKS

Applicant believes the application, as amended, is now in condition for allowance.

It is believed no further fee is due with this transmission, however, should a further fee be determined due with this transmission, the Commissioner is authorized to debit Hughes & Luce LLP Deposit Account No. 50-1343.

Respectfully submitted,
Hughes & Luce

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MARKED-UP COPY OF CLAIMS ACCORDING TO 37 CFR § 1.121(c)(1)(i)

1.   A system for condition assessment of a piece of
equipment comprising:

a virtual condition assessment instrument for measuring a
condition of the piece of equipment, comprising:

a data capture subsystem for sampling a set of
analog signals and converting the set of analog
signals to at least one digital signal;

a model component, comprising:

a filter to estimate disturbances; and

a predictor for predicting an expected
response;

a signal-based component for processing output from
[the] said model[-based] component;

a classification component for processing output
from [the] said signal-based component;

a fuzzy logic expert component for combining
information from [the] said classification
component and [the] said model[-based] component
to assess the condition of the piece of
equipment; and

a virtual end-of-life prediction instrument for measuring
an end of life of the piece of equipment, comprising:

a condition prediction end-of-life prediction
component for analyzing information from [the]
said virtual condition assessment instrument to
predict condition and end-of-life of the piece of
equipment;

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a prediction condition and end-of-life uncertainty
estimation component for processing information
received from [the] said condition prediction
end-of-life prediction component to obtain an
estimate of the uncertainty of the condition and
end-of-life prediction; and

an end-of-life panel for displaying the condition and end-of-life prediction and uncertainty.